USERS GUIDE
FOR L.I.S. FORMS

TERRESTRIAL EFFECTS AND PHYTOTOXICOLOGY

October, 1986

Ministry
of the
Environment

Ontario

E. PICHÉ, Director
Air Resources Branch

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USERS GUIDE FOR L.I.S. FORMS

TERRESTRIAL EFFECTS AND PHYTOTOXICOLOGY

Prepared by:
W.D. McIlveen

Ontario Ministry of the Environment
Phytotoxicology Section
Toronto, Ontario

October, 1986

PH95/1

ALVS

THE LABORATORY INFORMATION SYSTEM (L.I.S.)

L.I.S. was developed as a method whereby staff at the Resources Road Laboratory could follow the progress of any sample through the analysis procedure. In addition, the analysis results can be stored for future retrieval and manipulation in the computer at Downsview under the Sample Information System (S.I.S.). The present User's Guide deals only with the L.I.S. System.

A person wishing to submit samples to the laboratory must prepare the following paperwork to accompany the samples. The paper work consists of the following two parts.

A. SUBMISSION FORM

This document is used to enter data that are common to all samples in a sample submission, such as: sampling program, sampler, etc. and acts as a cover letter for the samples.

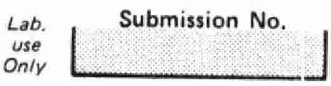
B. REQUEST FOR ANALYSIS FORM(S)

In addition to indicating those analyses which are requested, these forms act as field collection forms which include all pertinent data associated with a sample. Therefore, all information must be legible.

A. Completion of Submission Forms (Appendix A)

The following is to be used as a guide to the filling in of the Submission Document.

1.



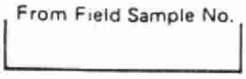
Lab. use Only

Submission No.

The submission number is a unique number for any particular submission of samples and must not be duplicated or re-used for any other submission.

This number will be determined from a consecutive number list in the Submission Number List Book to be kept in the Processing Laboratory. The number must be recorded along with the pertinent information in the Submission Number list book immediately to avoid duplication problems. the Submission Number is assigned by the Laboratory Supervisor.

2.



From Field Sample No.

Enter the first field sample number shown on the Request for Analysis or Field Data forms.

3. To Field Sample No. ☐ Enter the last field sample number shown on the Request for Analysis or Field Data forms.

4. Page ☐ of ☐ Enter 1 in the first box and the total number of sheets in the submission, i.e., the number of Request for Analysis pages plus one.

NOTE: The above three fields assist the Sample Reception staff in ensuring that all samples and sheets have arrived at the laboratory.

5. Sample Program Code:

Sample Program Code
0 2 0 0
Prog. Study Pro. Act. Sub Prog. Act.

Up to 9 digits must be entered here to define the Ministry's sampling program for which this set of samples was collected.

02	005	11		Ext. Req.	-	SW
		21		" "	-	WC
		31		" "	-	CE
		41		" "	-	SE
		12		Ass. Surv.	-	SW
		22		" "	-	SW
		32		" "	-	WC
		42		" "	-	SE
		03	07	Expt. Project		
		06		Phyto Acid Rain complts.		
02	006	13		APIOS T.E. Maple Dieback Study		
02	006	03		South Ont. Veg. Studies		
			01	Soils		
			02	Vegetation		
			03	Aqueous		
02	006	08		South Ont. Soil Studies		
			01	Soils		
			02	Vegetation		
			03	Aqueous		

6. Lab

Lab

A two-character code is to be entered here to indicate which laboratory will receive the submission. Until the Regional laboratories adopt LIS, the only valid entry in this box is "TR" for the Toronto Lab.

7. Priority

Pri

Enter the priority of the submission using "H" for high or "N" for normal. The Laboratory has established a protocol for High Priority samples requiring written authorization and prior laboratory consent for the use of high priority (see Appendix C).

8. Municipal Name

Municipal/Project

Enter file name (area, complainant, etc.). (Limit 24 letters)

9. Name of Sampler

Name of Sampler | Phone — —

Enter the sampler's surname and initial (up to 20 characters in total) and telephone number.

10. Client Code

Client Code 1

Enter the client code and name of the primary recipient of the final report or, if this person does not have a client code, complete all other fields.

The following client codes are available:

AR004	Bob Chai
AR008	D.S. Harper
AR010	S.N. Linzon
AR015	W.D. McIlveen
AR016	R.G. Pearson

AR025	D. Dimma
AR026	W. Gizyn
AR032	R.J. Rinne
AR033	D.L. McLaughlin
AR034	R.N. Emerson
AR035	G.N. Vasiloff
AR036	R. Jones

11. Field Data Type

FD Type

Certain sampling programs require that field data be captured in LIS for subsequent transfer to SIS. For Phytotoxicology samples enter T.E.

12. Sampling Agency

Sampling Agency

0 1 0 2 0 2 0 4

Min. Dn. Br. Reg. Sec. Unit

Up to 10 characters are to be entered here to identify the organizational unit responsible for collecting and shipping the samples.

01	02	02	04	01	Veg. Assessment Unit
				02	Diagnostic Support Unit
				03	Cont. Env. Unit

13. Vote

Vote Item

Not currently used; should be left blank.

14. Date Submitted

Date Submitted

/ /

DD MM YY

Enter the numeric day, month and year on which the submission was shipped to the laboratory. This is done by the Lab Supervisor.

15. Municipality Code

Project/
Mun. Code

Not currently used; must be left blank.

16. Copies to

------ Copies To ------

Enter the names and addresses of clients who are to receive copies of the results of tests.

OR

Their Client Code.

B. CODING REQUIREMENTS FOR REQUEST FOR ANALYSIS DOCUMENT (Appendix B)

The Request for Analysis forms serve as the field data forms and are used to record as much data as possible in the field. Certain information can be completed in the laboratory or office. Each sheet will accommodate up to six samples. No submission may exceed 50 samples in total.

The information included at the top of the page helps to tie the Request ofr Analysis sheet to the Sample Submission Form.

1. Submission No.

Submission No.

Transcribe the submission number from the Submission sheet. This will be completed by the Laboratory Supervisor.

2. Page Number

Page ☐ of ☐

Enter the page number of this sheet and the total number of pages in the submission. Since the Submission sheet is page 1, the first Request for Analysis sheet is page 2.

3. Phyto Field Sample No.

The field sample numbers are available as pre-numbered, gummed labels arranged on sheets which are kept in binders or covers by the investigator. The following procedure is to be used by the investigator in assigning numbers to the samples.

Phyto Field Sam. No.

i) A small number label is to be placed on the Request for Analysis form in the appropriate location on the form.

ii) The label(s) at the right hand side of the sheet are to be separated (along the perforations) from the number sheet and placed in an enclosure bag along with the sample. If washed or not washed analyses are requested, then the appropriate labels are to be used, and separate numbers assigned to each washed or not washed sample.

iii) Gummed labels are provided for those cases where samples are collected for other types of analysis. In these cases, the labels are applied directly to the glass sample bottles which contain the fresh samples.

iv) Extra numbered labels are also available for use on enclosure forms or any other container as needed.

v) Separate numbered label sheets are available for aqueous APIOS samples and are treated in the same manner as above, depending upon the number of containers submitted.

4. Con. Sent

Con. Sent

Enter the number of containers sent with the field sample. If none, enter '0'. This would apply to the situation where samples were collected for "fertility only".

5. Sample Date

Date
DD MM YY

Enter the date, month and year, in that order (e.g. 23/05/81) when the sample was taken.

6. Sample Type

Type

Space is provide to enter the type of sample according to the following list.

V - Vegetation
SO - Soil
PR - Precipitation (incident and throughfall)
SF - Stemflow
SX - Soil Extract
R - River Water

7. Analyze For

Analyze For:

Insert name of tests which are to be performed on the sample. The tests can include either individual tests (listed individually) or in test groups.

See Tables 1 and 2 for codes for test groups and individual test names. Do not link the requested tests by "+" or commas.

Note that in a code such as "FEUT" refers to a test for "Iron, unfractionated total"; a test "NNHTFR" would refer to "Ammonium, total, filtered, reactive", etc.

8. Location

Location

Each sampling location is identified by a seven digit code. Region - (1 digit) SW=1 WC=2 CE=3 SE=4. The next three digits will include codes for different areas or sources. Inthe case of experiments this 3 digit portion plus the last 3 digits are always 000 000. The last three digits refer to station numbers (1 through 999) within the particular surveillance area. These location codes can be arranged through Bob Chai. In the case of control samples the first of these last 3 digits should be a "9". New sampling sites will be given the next available station number and in the case of Assessment Surveys a new station identifier form must be filled out.

9. Sample Description

Sample Description

Any information can be written in this area. We will use it largely for indicating plant species and plant parts included in the sample.

Other Allocation refers to the addition of samples for purpose of non-chemical analysis, etc.

Other Allocation

Note this information under "Sample Description" will appear on LIS printout but is NOT transferred into SIS.

10. S.I.S. Type

SIS Type

0 7 5

This will be preprinted with "075".

11. Sample Species

Sample/Species

This will be a four digit code as assigned to each species, plant type or soil depth increment. These are available from the Species Code Book maintained by the Laboratory Supervisor.

12. Sample Type

Sam. Ty.

The sample type is described by a two digit code (Table 3). The sample type includes plant parts, forage type, snow type and soil texture.

13. Area Type

Area Ty.

The single digit code that best applies to the general sampling area is inserted in this space. The codes are included in Table 4.

14. Foliar Injury

Foliar Injury
N C O

The degree and severity of injury observed in the sample are included in this set of codes. The injury is evaluated in terms of necrosis, chlorosis or other types of injury. For each type of injury, the first digit in the corresponding digit pair refers to the type or position of injury while the second digit refers to the amount of (or severity classification range) of visible injury. The codes for these are included in Table 5.

15. Alloc.: Allocation Code

Alloc.

If samples are collected for purposes in addition to chemical analysis, then the appropriate code can be selected from Table 6.

16. Conv. Fact: Conversion Factor

Conv. Fact.

If it is necessary to convert the concentration of material in vegetation samples from a "dry weight" basis to a "fresh weight" basis, a conversion factor can be used to complete this step. The conversion factor can be determined from the table included in the Laboratory Procedure Manual or by moisture content determination for the sample. In most cases, this space will not be used.

17. S.Q.: Sample Quadrant

S. Q.

In some studies, it is necessary to collect a sample on the side of a tree facing a source for purposes of comparison with a sample on the side away from the source. This information can be determined using the sample quadrant method. Codes (Table 7) for the collection points within the tree canopy can be used (not directions from an indicated source). If fallen foliage or twigs are collected from the ground, then this can also be recorded here (Table 7).

Snow Sample
T.D. F.D. #C

18. Snow Sample

The depths of total snow profile, and fresh snow are recorded in cm. For depths over 1 metre, a depth of 99 cm is recorded. The number of cores through the snow profile which have been included in a sample is also recorded.

Universal Transverse Mercator

19. U.T.M.

The UTM sample site coordinates are recorded in the assigned spaces. The first 2 digit space is reserved for the zone of collection. The next pair of seven or eight digit groups are reserved for eastings and northings respectively. Since sample locations are normally measured only to the nearest 100 metres, then the last three digits will be zero in each group. The last digit (position 68) will be left blank at present.

T.C.

20. T.C.: Tree Condition

This value will be that value assigned to trees according to the tree crown vigor classes listed in the Field Procedure Manual.

N.R.

21. N.R.: Needle Retention

Provision is made here for recording the percent of foliage remaining on a tree as compared with the amount that one would normally expect to be present on the tree.

G.S.

22. G.S.: Growth Stage

For future purposes, it would be desirable to record that state of maturity of a plant or crop when it was sampled. As decimal codes are developed for different stages of plant maturity for various plant types, these can be entered into the allocated space.

A. B. C.

23. A,B,C,

These spaces are available for future use and are currently unassigned. Therefore, they will be left blank.

Table 1

L.I.S. TEST NAME CODES

Test Name	Description
ACDG	Acidity, Gran Endpoint
ACDM	Acidity, Mineral
ACDT	Acidity, Total
AGUT	Silver, Unfiltered Total
AGWT	Silver, Wash Veg. Total
ALEDI	Aluminum, Dithionate Ext.
ALEDX	Aluminum, Oxalate Ext.
ALEPY	Aluminum, Pyrophos Ext.
ALESC	Aluminum, Sod. Chloride Ext.
ALEW	Aluminum, Extract in H_2O
ALFT	Aluminum, Filtered Total
ALKT	Alkalinity Total
ALPBT	Aluminum, Precip. Bag 5% HNO_3
ALPDT	Aluminum in Precipitation
ALUT	Aluminum, Unfiltered Total
ALWT	Aluminum, Wash Veg. Total
ASUT	Arsenic, Unfiltered Total
ASWT	Arsenic, Wash Veg., Total
AUUT	Gold, Unfiltered Total
AUWT	Gold, Wash Veg, Total
BAUT	Barium, Unfiltered Total
BAWT	Bariuim, Wash Veg, Total
BBUT	Boron, Unfiltered Total
BBWT	Boron, Wash Veg, Total
BEUT	Berylium, Unfiltered Total
BEWT	Berylium, Wash Veg, Total
BIUT	Bismuth, Unfiltered Total
BRUT	Bromine, Unfiltered Total
B3001X	Phenanthpene
B3002X	Anthracene
B3003X	Fluoranthene
B3005X	Benz(A)Anthracene
B3006X	Chrysene
B3007X	Dimeth Benz(A)Anthracene

Table 1 Continued

Test Name	Description
B3008X	Benzo(E)Pyrene
B3009X	Benzo(J)Fluoranthene
B3010X	Benzo(B)Fluoranthene
B3011X	Perylene
B3012X	Benzo(K)Fluoranthene
B3013X	Benzo(A)Pyrene
B3014X	Benzo(G,H,I)Perylene
B3015X	Dibenz(A,H)Anthracene
B3016X	Indeno(1,2,3-C,D)Pyrene
B3017X	Benzo(B)Chrysene
B3018X	Anthanthrene
B3019X	Coronene
B4GAS	Gasoline
B4MBDF	Med'm Buil'g Distil Fuel
B5001X	Phenol
CAUT	Calcium, Unfiltered Total
CAWT	Calcium, Wash Veg, Total
CC03UR	Carbonate, Unfil. Reac.
CCUT	Carbon, Unfiltered Total
CDFT	Cadmium, Filtered Total
CDPBI	Cadmium, Precip. Bag 5%HNO_3
CDPDI	Cadmium, in Precipitation
CDUT	Cadmium, Unfiltered Total
CDWT	Cadmium, Wash Veg, Total
CEC	Cation Exchange Capacity
CHLRAC	Chlorophyll-A, Corrected
CHLRAP	Chlorophyll-A, Pheophytim
CHLRAT	Chlorophyll-A, Total
CHLRBC	Chlorophyll-B, Corrected
CHLRBP	Chlorophyll-B, Pheophytin
CHLRBT	Chlorophyll-B, Total
CHLRCT	Chlorophyll-C, Total
CLAY	Clay, Percent Particle Size
CLIDUR	Chloride, Unfil. Reac.
CLEW	Chloride, Water Extractable
CLUT	Chlorine, Unfil. Total
CLWT	Chlorine, Wash Veg. Total

Table 1 Continued

Test Name	Description
COD	Chemical Oxygen Demand
COND25	Conductivity, 25C
COUT	Cobalt, Unfiltered Total
COWT	Cobalt, Wash Veg. Total
CRPBT	Chromium, Precip Bag 5% HNO_3
CRPDT	Chromium, in Precipitation
CRUT	Chromium, Unfiltered Total
CRWT	Chromium, Wash Veg, Total
CSUT	Cesiuim Unfiltered Total
CUPBT	Copper, Precip. Bag 5%HNO_3
CUPDT	Copper, in Precipitation
CUUT	Copper, Unfiltered Total
CUWT	Copper, Wash Veg, Toptal
FEEI	Iron, Dithionate Ext.
FEEOX	Iron, Oxalate Extractable
FEEPY	Iron, Pyrophosphate Ext.
FEPBT	Iron, Precip. Bag 5% HNO_3
FEPDT	Iron, In Precipitation
FEUT	Iron, Unfiltered Total
FEWT	Iron, Wash Veg, Total
FFUT	Fluorine, Unfiltered Total
FFWT	Fluorine, Wash Veg, Total
HGUT	Mercury, Unfiltered Total
HGWT	Mercury, Wash Veg. Total
HH3	Tritium (Hydrogen 3)
KKESC	Potassium, Sod. Chloride Ext.
KKUT	Potassium, Unfiltered Total
KKWT	Potassium, Wash Veg. Total
LIPID	Lipids
LIUT	Lithium, Unfiltered Total
MICREX	Identification, Microscopic Exam.
MGUT	Magnesium, Unfiltered Total
MGWT	Magnesium, Wash Veg. Total
MNEDT	Manganese, Dithionate Ext.
MNEOX	Manganese, Oxalate Ext.

Table 1 Continued

Test Name	Description
MNEPY	Manganese, Pyrophosphate Ext.
MNPBT	Manganese, Precip. Bag 5%HNO_3
MNPDT	Manganese, in Precipitation
MNUT	Manganese, Unfiltered Total
MNWT	Manganese, Wash Veg. Total
MOIST	Moisture
MOUT	Molybdenum, Unfiltered Total
MOWT	Molybdenum, Wash Veg. total
NAUT	Sodium, Unfiltered Total
NAWT	Sodium, Wash Veg, Total
NIPBT	Nickel, Precip. Bag 5%HNO_3
NIPDT	Nickel, in Precipitation
NIUT	Nickel, Unfiltered Total
NIWT	Nickel, Wash Veg. Total
NMDNIT	Denitrofiers
NMROSO	Nitrosomonas
NMTROB	Nitrobacter
NNHTUR	Ammonium, total Unfil. Reac.
NNH 4FR	Ammonium Ion Filter Reac.
NNKUR	Kjeldahl, Organic Unfil. Reac.
NNOTUR	Nitrates Total, Unfil. Reac.
NNO3UR	Nitrate, Unfiltered Reactive
NNTKUR	Nitrogen, Tot. Kjeldahl Unfil. Total
OPROAD	Opt Micr Road Dust Silica
OPSLAG	Opt Micr Slag
OPSTAR	Opt Micr Starch
OPUNID	Opt Micr Unidentified
OPWDCH	Opt Micr Woodchar
PBPBT	Lead, Precip. Bag 5%HNO_3
PBPDT	Lead, in Precipitation
PBUT	Lead, Unfiltered Total
PBWT	Lead, Wash Veg, Total
PH	pH (-Log H^+ Concn)
PHECA	pH Calcium Chloride Ext
PHEW	pH Water Extractable

Table 1 Continued

Test Name	Description
POALA	Alachlor
POMET	Metalachlor
PPO4SB	Phosphate, Na Bicarb Extract
PPO4OT	Phosphate, Unfiltered Total
PPUT	Phosphorus, Unfiltered Total
PPWT	Phosphorus, Wash Veg. Total
SAND	Sand Percent Particle Size
SBUT	Antimony, Unfiltered Total
SBWT	Antimony, Wash Veg. Total
SEUT	Selenium, Unfiltered Total
SEWT	Selenium, Wash Veg, Total
SILT	Silt Percent Particle Size
SIUT	Silicon, Unfiltered Total
SIWT	Silicon, Wash Veg, Total
SNUT	Tin, Unfiltered Total
SOLEXT	Solvent Extractables
SRUT	Strontium, Unfiltered Total
SRWT	Strontium, Wash Veg, Total
SS02FR	Sulphur Dioxide, Fil. Reac.
SS04UR	Sulphate, Unfiltered Reactive
SSUT	Sulphur, Unfiltered Total
SSWT	Sulphur, Wash Veg, Total
SS04NF	Sulphate, Nylon Filter
TANN	Tannins, Unfiltered
TIUT	Titanium, Unfiltered Total
TIWT	Titanium, Wash Veg, Total
TLUT	Thallium, Unfiltered Total
TLWT	Tahllium, Wash Veg, Total
UUUT	Uranium, Unfiltered Total
UUWT	Uranium, Wash Veg. Total
UU238	Uranium, 238
VOLDDA	Volume, Precip. Bag Leach
VOLDDW	Volume, of DDW Used In Leach
VOLUME	Volume, Sample
VVPET	Vanadium, Precip. bag 5% HNO_3

Table 1 Continued

Test Name	Description
VVPDT	Vanadium, In Precipitation
VVUT	Vanadium, Unfiltered Total
VVWT	Vanadium, Wash Veg. Total
WEIGHT	Weight, Sample
ZNPBT	Zinc, Precip. Bag 5%HNO_3
ZNPDT	Zinc, In Precipitation
ZNUT	Zinc, Wash Veg. Total
ZNWT	Zinc, Wash Veg. Total

Table 2

TEST GROUP CODES

Metals

GM1	Cu	Ni	Zn							
GM2	Cu	Ni	Zn	Co						
GM3	Cu	Ni	Zn	Co	Fe					
GM2A	Cu	Ni	Zn	Co			Mo			
GMT3	Cu	Ni	Zn	Co	Fe			Ca		
GMT1A			Zn		Fe	Mn		Ca	Mg	
GMT1B				Co	Fe	Mn		Ca	Mg	
GMT1					Fe			Ca	Mg	
GMT1C								Ca	Mg	K

GM8	Pb		Cu		Zn														
GM8B	Pb	Cd	Cu		Zn														
GM5	Pb	Cd	Cu	Ni	Zn														
GM4	Pb		Cu	Ni	Zn	Co	Fe												
GM6	Pb	Cd	Cu	Ni	Zn			Cr											
GM6A	Pb	Cd	Cu	Ni	Zn		Fe	Cr											
GM5A	Pb	Cd	Cu	Ni	Zn	Co	Fe		Mn										
GM6T	Pb	Cd	Cu	Ni	Zn		Fe	Cr		Mo	V								
GM4T	Pb		Cu	Ni	Zn	Co	Fe						Ca						
GMT6A	Pb	Cd	Cu	Ni	Zn		Fe	Cr		Mo	V		Ca	Mg	Na				
HMSC1	Pb	Cd	Cu	Ni	Zn	Co	Fe	Cr	Mn	Mo	V	Al				Ba	Be	Sr	Ti

Non-Metals

GN1	As	Se					
GN1A	As	Se	Sb				
GN3T				S	Cl	F	(only soils)
GMT2				S	Cl	F	(only vegetation)

Organics

OILGRS	Solvent Extractables (ID)
ORPHC	Gasoline, Industrial Solvent Petro, Med'm Boil Distil Fuel

Pesticides

PECAR	Carbamides (12)
PECB	Chlorobenzenes (10)
PECP	Chlorophenols (4)
PEOC	Organochlorines (22)
PEOP	Organophosphates (13)
PEPA	Phenoxyacids (9)
PETRI	Triazines (10)
PEURH	Urea herbicides (13)

Table 3
SAMPLE TYPE CODES

00	Not specified
01	leaves: current year
02	leaves: 1 year old
03	leaves: 1 year old
04	leaves: not separated
05	twigs: current year
06	twigs: 1 year old
07	twigs: 1 year old
08	twigs: not separated
09	flowers
10	fruit
11	seeds
12	stems
13	bark
14	roots
15	storage organs
16	entire plant
17	forage: uncut - succ. green
18	forage: uncut - mature
19	forage: uncut - senescent
20	forage: uncut - combination
21	forage: cut - succ. green
22	forage: cut -mature
23	forage: cut - senescent
24	forage: cut - combination
25	forage: grazed - succ. green
26	forage: grazed - mature
27	forage: grazed - senescent
28	forage: grazed - combination
29	snow - fresh
30	snow - old
31	snow - mixture
32	soil - sandy
33	soil - loamy sand
34	soil - sandy loam
35	soil - loam
36	soil - silt loam
37	soil - silty clay loam
38	soil - clay loam
39	soil - sandy clay
40	soil - silty clay
41	soil - clay
42	soil - coarse aggregate
43	soil - organic
44	soil - greenhouse
45	water - rain
46	water - well
47	water - mun. supply
48	water - river/lake
49	water - pond

Table 4

AREA TYPE CODES

Code	Description of Sample Site
1	Major Urban Complex - Residential
2	Major Urban Complex - Commercial:Industrial:Right-of-Way
3	Major Urban Complex - Parkland/Greenbelt
4	Minor Urban Centre - Residential
5	Minor Urban Centre - Commercial:Industrial:Right-of-Way
6	Minor Urban Centre - Parkland/Greenbelt
7	Rural/Native Area - Agricultural
8	Rural/Native Area - Commerical:Industrial:Right-of-Way
9	Rural/Native Area - Parkland/Undisturbed
0	Unknown or Other

Table 5

FOLIAR INJURY

— Necrosis or Chlorosis --				-- Other —			
Code	Description	Code	Description	Code	Description	Code	Description
0	normal	0	normal	0	normal	0	normal
1	terminal	1	0 - 1%	1	bronze	1	0 - 1%
2	marginal	2	2 - 10%	2	stipple	2	2 - 10%
3	intercostal	3	11 -- 35%	3	fleck	3	11 - 35%
4	combination	4	35%	4	comb. 1-3	4	35%
		5	100%	5	anthocy.	5	100%
				6	insect		
				7	disease		
				8	other		

Table 6
ALLOCATION CODES

00	chemical only			
01	He			
02	Pa			
03	Hi			
04	Bi			
05	Fe			
06	Ot			
07	He	Pa		
08	He	Pa	Hi	
09	He	Pa	Hi	Ot
10		Pa	Hi	
11		Pa	Bi	
12		Pa	Fe	
13		Pa	Ot	
14	Pa	Bi	Fe	
15	Pa	Bi	Fe	Ot
16		Hi	Ot	
17		Bi	Fe	
18		Bi	Ot	
19		Bi	Fe	Ot
20		Fe	Ot	

Table 7

SAMPLE QUADRANT CODES

0 - Not Specified
1 - North
2 - North East
3 - East
4 - South East
5 - South
6 - South West
7 - West
8 - North West
9 - On Ground

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Ontario

Submission Sheet: Terrestrial Effects

Lab. use Only — Submission No.:

From Field Sample No.:

To Field Sample No.:

Page ☐ of ☐

Sample Program Code (Prog. / Study / Pro. Act. / Sub Prog. Act.): 0200

Lab:

Pri:

FD Type:

Sampling Agency (Min. / Dn. / Br. Reg. / Sec. / Unit): 01020204

Vote:

Item:

Date Submitted (DD / MM / YY): / /

Project/ Mun. Code:

Municipal/Project:

Name of Sampler:

Phone: — —

Client Code 1:

Report to (Name):

Phone: — —

Establishment:

Address:

City:

Province (Country):

Postal Code: —

------ Copies To ------

Client Code 2: **AR 004**

Name: Mr. B. L. Chai

Phone:

Establishment:

Address:

City:

Province (Country):

Postal Code:

Client Code 3:

Name:

Phone:

Establishment:

Address:

City:

Province (Country):

Postal Code:

Client Code 4:

Name:

Phone:

Establishment:

Address:

City:

Province (Country):

Postal Code:

Client Code 5:

Name:

Phone:

Establishment:

Address:

City:

Province (Country):

Postal Code:

Appendix A

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Ministry
of the
Environment
Ontario

Request for Analysis
Terrestrial Effects

Submission No.

Page ____ of ____

Phyto Field Sam. No.	Date DD MM YY	Analyze For:	Location	Sample Description
Con. Sent / Con. Miss.	Type			Other Allocation
Lab. Sample No.	Lab. Remarks			Sampler Remarks

Field Data SIS Type 0 7 5 (20) — Sample/Species (23) — Sam. Ty. (27) — Area Ty. (29) — Foliar Injury N C O (30) — Alloc. (36) — Conv. Fact. (38) — S. Q. (41) — Snow Sample T.D. F.D. #C (42) — Soil pH (48)

(51) — Universal Transverse Mercator (53) (60) — (68) — T.C. (69) — N.R. (71) — G.S. (73) — A. (75) — B. (78) — C. (80)

Phyto Field Sam. No.	Date DD MM YY	Analyze For:	Location	Sample Description
Con. Sent / Con. Miss.	Type			Other Allocation
Lab. Sample No.	Lab. Remarks			Sampler Remarks

Field Data SIS Type 0 7 5 (20) — Sample/Species (23) — Sam. Ty. (27) — Area Ty. (29) — Foliar Injury N C O (30) — Alloc. (36) — Conv. Fact. (38) — S. Q. (41) — Snow Sample T.D. F.D. #C (42) — Soil pH (48)

(51) — Universal Transverse Mercator (53) (60) — (68) — T.C. (69) — N.R. (71) — G.S. (73) — A. (75) — B. (78) — C. (80)

Phyto Field Sam. No.	Date DD MM YY	Analyze For:	Location	Sample Description
Con. Sent / Con. Miss.	Type			Other Allocation
Lab. Sample No.	Lab. Remarks			Sampler Remarks

Field Data SIS Type 0 7 5 (20) — Sample/Species (23) — Sam. Ty. (27) — Area Ty. (29) — Foliar Injury N C O (30) — Alloc. (36) — Conv. Fact. (38) — S. Q. (41) — Snow Sample T.D. F.D. #C (42) — Soil pH (48)

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Con. Sent / Con. Miss.	Type			Other Allocation
Lab. Sample No.	Lab. Remarks			Sampler Remarks

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Phyto Field Sam. No.	Date DD MM YY	Analyze For:	Location	Sample Description
Con. Sent / Con. Miss.	Type			Other Allocation
Lab. Sample No.	Lab. Remarks			Sampler Remarks

Field Data SIS Type 0 7 5 (20) — Sample/Species (23) — Sam. Ty. (27) — Area Ty. (29) — Foliar Injury N C O (30) — Alloc. (36) — Conv. Fact. (38) — S. Q. (41) — Snow Sample T.D. F.D. #C (42) — Soil pH (48)

(51) — Universal Transverse Mercator (53) (60) — (68) — T.C. (69) — N.R. (71) — G.S. (73) — A. (75) — B. (78) — C. (80)

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(51) — Universal Transverse Mercator (53) (60) — (68) — T.C. (69) — N.R. (71) — G.S. (73) — A. (75) — B. (78) — C. (80)

Appendix B

Appendix C

PROTOCOL FOR HIGH PRIORITY SUBMISSIONS

- Samples be designated as "EMERGENCY" when collected as the result of a contingency which poses a direct threat to human health or which may lead to an emergency environmental situation.

  Samples must be collected according to recommended laboratory procedures.

  Each MOE Region and Branch must designate a senior staff member and alternate who will co-ordinate high priority submissions for their specific area.

- High priority submissions must be authorized and receipt of high priority samples must be preceded by a phone call to either the central laboratory emergency response co-ordinator or to any appropriate section ERTF representative or Manager.

- The laboratory personnel contacted will obtain a full description of the problem and sampling details and will ensure that the samples are received when and as described. The contact person is also responsible for ensuring that sample reception staff are notified and the submission is assigned an "H" priority, and for contacting ERTF representatives in each affected laboratory section. An estimated completion date will be established and transmitted to the client.

- All samples must be submitted through LIS with Submission and Request for Analysis forms completed and included with the samples, if possible, or forwarded as soon as possible. A signed authorization form from the senior regional co-ordinator must also accompany samples or be forwarded as soon as possible. Forms with photocopied signatures are not acceptable.

- Submissions not meeting these requirements will be designated a Normal (N) priority and treated as such.

- If arrangements have been made with ERTF personnel, results will be phoned-in to the client immediately upon completion of specific analyses prior to printing of a final LIS report.

- The ERTF will meet every 2 to 3 weeks to review the status of all high priority submissions and to expedite completion of analysis within the estimated time limit.

- If the laboratory cannot complete the analysis within the defined time limit, the ERTF representative of the section responsible for the delay must contact the client to explain the problem and assume responsibility for ensuring completion of the work by a mutually agreeable date.

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MOE/USE/ALVS

MOE/USE/ALVS
McIlveen, W.D.
Users guide fro L I
S forms :
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